

Daniel T. Cox

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1. Professional Preparation

University of Delaware	Civil Engineering	BS, 1987
University of Delaware	Civil Engineering	MS, 1989
University of Delaware	Civil Engineering	PhD, 1995

2. Appointments

Assoc. Director	Center for Risk-Based Community Resilience Planning	2014 – now
Professor	Civil and Constr. Engineering, Oregon State University	2009 – now
Adjunct Prof.	College of Earth, Ocean and Atmospheric Science	2007 – now
Director	Cascadia Lifelines Program, Oregon State University	2016 – 2019
Visiting Scholar	Disaster Prevention Research Inst, Kyoto Univ, Japan	2010 – 2011
Director	Hinsdale Wave Res. Laboratory, Oregon State University	2002 – 2010
Assoc. Prof.	Civil Engineering, Oregon State University	2002 – 2009
Assoc. Prof.	Civil Engineering, Texas A&M University	2001 – 2002
Assistant Prof.	Civil Engineering, Texas A&M University	1995 – 2001
Res. Assistant	Center for Applied Coastal Research, Univ. of Delaware	1991 – 1995
Visiting Scholar	Coastal Engineering Laboratory, Kyoto University, Japan	1989 – 1991
Res. Assistant	Center for Applied Coastal Research, Univ. of Delaware	1987 – 1989

3. Professional Awards and Recognition

CH2M-Hill Professor in Civil Engineering, Oregon State University	2018 – now
Co-author of Editor's Choice Selection paper, <i>Natural Hazards Review</i>	2018
Co-author of Best Journal Paper, <i>J. Structural Engineering</i>	2017
Co-author of two Outstanding Papers, <i>J. Waterway Port Coast and Ocean Engrg.</i>	2016
Co-author of paper awarded ASCE/SEI Raymond C. Reese Research Prize	2015
Co-author of Outstanding Paper, <i>J. of Performance of Constructed Facilities</i>	2013
Outstanding Research Leadership Award, OSU, College of Engineering	2013
Japan Society for the Promotion of Science, Long-Term Invitation Fellow	2010 – 2011
Research Collaboration Award, Oregon State University College of Engineering	2006
Japan Society for the Promotion of Science, Short-Term Invitation Fellow	1999
NSF Faculty Early Career Development (CAREER) Award	1998

4. Professional Activities

Journal Editor:

Associate Editor, <i>Natural Hazards Review</i>	2019 – now
Associate Editor, <i>Coastal Engineering</i>	2017 – now
Associate Editor, <i>Sustainable and Resilient Infrastructure</i>	2015 – now
Associate Editor, <i>Journal of Waterway, Port, Coastal and Oc. Engrg</i>	2012 – 2017
Associate Editor, <i>Coastal Engineering Journal</i>	2011 – 2013
Associate Editor, <i>KSCE Journal of Civil Engineering</i>	2011 – 2013

Journal Reviewer:

<i>Applied Geography</i>	<i>Journal of Coastal Research</i>
<i>Applied Ocean Research</i>	<i>Journal of Engineering Mechanics</i>
<i>Climate Change</i>	<i>Journal of Geophysical Res. – Ocean</i>
<i>Coastal Engineering</i>	<i>Journal of Geophysical Res. – Earth Surface</i>
<i>Coastal Engineering Journal</i>	<i>Journal of Hydraulic Engineering</i>
<i>Continental Shelf Research</i>	<i>Journal of Hydraulic Research</i>
<i>Earthquake Spectra</i>	<i>Journal of Oc. Engrg. and Marine Energy</i>
<i>Engineering Mechanics</i>	<i>Journal of Performance of Constr. Facilities</i>
<i>Estuarine, Coastal and Shelf Science</i>	<i>Journal of Wtwy, Port, Coast. and Oc. Engrg</i>
<i>European Journal of Mechanics - Fluids</i>	<i>Marine Geology</i>
<i>Experiments in Fluids</i>	<i>Natural Hazards</i>
<i>Intern. Society of Offshore and Polar Engrs.</i>	<i>Natural Hazards Review</i>
<i>Geomorphology</i>	<i>Ocean Engineering</i>
<i>Geosciences</i>	<i>Ocean Modeling</i>
	<i>Structures</i>

Committees and Service:

Oregon Tsunami Line Working Group	2019 – now
ASCE 7-22, Chapter 5, Flood Load subcommittee (Chair)	2017 – now
ASCE 7-22, Chapter 6, Tsunami Loads and Effects subcommittee	2017 – now
ASCE Coastal Engineering Research Council	2016 – now
NSF Natural Hazards Engineering Research Infrastructure (NHERI) Council	2016 – now
ASCE / COPRI Coastal Engineering Research Council	2015 – now
NIST Center for Risk-based Community Resilience Planning, member	2014 – now
DHS Coastal Resilience Center, member	2014 – now
ASCE / COPRI Coastal Structures Committee (Chair)	2013 – now
NRC Committee on USACE Coastal Risk Reduction	2013 – 2014
ASCE 7-16, Chapter 5, Flood Load subcommittee	2013 – 2016
ASCE 7-16, Chapter 6, Tsunami Loads and Effects subcommittee	2011 – 2016
Network for Earthquake Engineering Simulation (NEES), committee	2010 – 2014
US Senate Testimony, Subcommittee on Tsunami Preparedness	2005
ASCE / COPRI Board of Governors	2002 – 2004
ASCE / COPRI Communications Committee	1997 – 2002

Conferences/Workshops

- NSF NHERI Workshop, Corvallis OR, 2015, 2017, 2019 (co-organizer)
- NSF Coastal Workshop, Washington, DC, 2018 (co-organizer)
- ASCE / COPRI Coastal Structures, Boston MA, 2015 (organizer)

5. Courses Taught (since 09/2002)

1. CE 311 Fluid Mechanics
2. CE 313 Fluid Hydraulics
3. CE 4/511 Introduction to Ocean Engineering
4. CE 4/515 Coastal Infrastructure
5. CE 631 Linear Wave Theory II
6. CE 642 Random Waves
7. CE 645 Wave Forces
8. CE 647 Ocean and Coastal Measurements

6. Publications

6.1 Manuscripts submitted

1. Sanderson, D, S Kameshwar, N Rosenheim, DT Cox “Deaggregation of multi-hazard damages, losses, risks, and connectivity: An application to the joint seismic-tsunami hazard at Seaside, Oregon,” *Risk Analysis*, (submitted, 11/2019).
2. Suzuki, T, DT Cox, “Effects of wave breaking formulations, wave nonlinearity and bed friction on XBeach performance for onshore and offshore sediment transport events,” *Marine Geology* (submitted, 10/2019).
3. Suzuki, T, S Sasakihamma, DT Cox, “Effect of tidal range on longshore current variation with respect to cross-shore location of a barred beach,” *Coastal Engineering Journal* (submitted, 10/2019).
4. Buylova, A, C Chen, L Cramer, H Wang, DT Cox “Household risk perceptions and evacuation behavior in earthquake and tsunami in a Cascadia Subduction Zone coastal city,” *International Journal of Disaster Risk Reduction* (resubmitted, 11/2019).
5. Kameshwar, S, F Ribeiro, AR Barbosa, DT Cox “Surrogate modeling based methodology for developing limit state free tsunami building fragility models and performing sensitivity analysis,” *Structural Safety* (submitted, 11/2018).
6. Winter, A, MS Alam, K Shekhar, M Motley, M Eberhard, AR Barbosa, P Lomonaco, P Arduino, DT Cox “Tsunami-like wave forces on an elevated coastal structure: Effects of flow shielding and channeling,” *J. Waterway Port Coastal and Ocean Engineering* (resubmitted, 7/2019).

6.2 Journal Papers

1. Alam, MS, AR Barbosa, A Winter, G Galant, K Shekhar, M Motley, M Eberhard, DT Cox, P Arduino, P Lomonaco, (2019) “Tsunami-like Wave Induced Lateral and Uplift Pressures and Forces on an Elevated Coastal Structure” *J. Waterway Port Coastal and Ocean Engineering* (accepted).
2. Bernier, C, JE Padgett, Y Lin, CN Dawson, P Lomonaco, DT Cox, “Laboratory experiments of vertical cylinders representative of aboveground storage tanks subjected to waves,” *J. Structural Engineering* (accepted).
3. Suzuki, T, DT Cox (2019) “Statistical analysis of longshore currents on a barred beach,” *Journal of Coastal Research*, 35(6), 1215–1224. doi: 10.2112/JCOASTRES-D-18-00151.1
4. Do, T, JW van de Lindt, DT Cox (2020) “Hurricane Surge-Wave Building Fragility Methodology for Use with HAZUS-MH,” *J. Structural Engineering*, 146(1), 04019177, doi.org: 10.1061/(ASCE)ST.1943-541X.0002472.
5. Suzuki, T, Y Inami, S Yanagishima, S Sakihama, DT Cox, “Sediment particle movements observed using tracers under accretive wave conditions in the nearshore zone,” *Coastal Engineering Journal*, doi.org/10.1080/21664250.2019.1629863.
6. Tomiczek, T, A Wyman, H Park, DT Cox (2019) “Modified Goda Equations to Predict Pressure Distribution and Horizontal Forces for Design of Elevated Coastal Structures,” *J. Waterway Port Coastal and Ocean Engineering*, 145, 6, doi.org: 10.1061/(ASCE)WW.1943-5460.0000527.

7. Park, H, DT Cox (2019) “Effects of advection on forecasting construction debris for vulnerability assessment under multi-hazard earthquake and tsunami,” *Coastal Engineering* 153, 103541, doi.org/10.1016/j.coastaleng.2019.103541
8. Kim, Y, Z Chen, D Anderson, DT Cox, JA Puleo, RS Mieras, TJ Hsu, (2019) “A numerical study of sheet flow driven by velocity and acceleration skewed near-breaking waves on a sandbar using SedWaveFoam,” *Coastal Engineering*, 152, 103526, doi.org/10.1016/j.coastaleng.2019.103526.
9. Kameshwar, S, H Park, S Alam, K Farokhnia, K, AR Barbosa, DT Cox, JW van de Lindt, (2019) “Probabilistic decision-support framework for community resilience: Incorporating multi-hazards, infrastructure interdependencies, and target objectives in a Bayesian network,” *Reliability Engineering and System Safety*, 191, 106568, doi.org/10.1016/j.ress.2019.106568.
10. Park, H, DT Cox, S Shin (2019) “Physical modeling of horizontal and vertical tsunami forces on the elevated overland structure,” In: Lee, J.L.; Yoon, J.-S.; Cho, W.C.; Muin, M., and Lee, J. (eds.), The 3rd International Water Safety Symposium. *Journal of Coastal Research*, SI-91, 51-55.
11. Attary, N, JW van de Lindt, AR Barbosa, DT Cox, V Unnikrishnan, (2019) “Performance-Based Tsunami Engineering for Risk Assessment of Structures Subjected to Multi-Hazards: Tsunami Following Earthquake,” *Journal of Earthquake Engineering*, doi.org/10.1080/13632469.2019.1616335.
12. Mostafizi, A, H Wang, DT Cox, S Dong (2019) “An Agent-based Vertical Evacuation Model for a Near-field Tsunami: Choice Behavior Optimal Shelter Locations, and Life Safety,” *International Journal of Disaster Risk Reduction*, 34, 467-479.
13. Park, H, MS Alam, DT Cox, AR Barbosa, JW van de Lindt (2019) “Probabilistic seismic and tsunami damage analysis (PSTDA) for the Cascadia Subduction Zone applied to Seaside, Oregon,” *International Journal of Disaster Risk Reduction*, 35, 101076, <https://doi.org/10.1016/j.ijdr.2019.101076>.
14. Cox, DT, T Arikawa, A Barbosa, G Guannel, D Inazu, A Kennedy, Y Li, N Mori, K Perry, D Prevatt, D Roueche, T Shimozono, C Simpson, E Shimakawa, T Shimura R Slocum (2019) “Hurricanes Irma and Maria post-event survey in US Virgin Islands” *Coastal Engineering Journal*, 1-14.
15. Mieras, RS, JA Puleo, D Anderson, TJ Hsu, DT Cox, (2019) “Relative contributions of bed load and suspended load to sediment transport under skewed-asymmetric waves on a sandbar crest,” *Journal of Geophysical Research – Oceans*. 124, 2, 1294-1321. <https://doi.org/10.1029/2018JC014564>.
16. Elko, N, C Dietrich, M Cialone, H Stockdon, MW Bilskie, B Boyd, B Charbonneau, DT Cox, K Dresback, S Elgar, V Tomiczek, A Lewis, P Limber, J Long, C Massey, T Mayo, K McIntosh, N Nadal, B Raubenheimer, A Wargula (2019) “U.S. Coastal Research Program (USCRP): Advancing the Understanding of Storm Processes and Impacts,” *Shore and Beach*, 87(1).
17. Xiong, Y, Q Liang, H Park, DT Cox, G Wang (2018) “A Deterministic Approach for Assessing Tsunami-Induced Building Damage through Quantification of Hydrodynamic Forces,” *Coastal Engineering*, doi: <https://doi.org/10.1016/j.coastaleng.2018.11.002>.
18. Park, H, DT Cox, AR Barbosa (2018) “Probabilistic Tsunami Hazard Assessment (PTHA) for Resilience Assessment of a Coastal Community,” *Natural Hazards*, <https://doi.org/10.1007/s11069-018-3460-3>.

19. Chen, YG, Y Chen, H Park, B Weber, J Reimer, DT Cox, P Corcoran (2018) “An Integrated Engineering-Economic Model for the Assessment of Regional Vulnerability to Tsunamis” *Natural Hazards Review*, 19, 4, 04018018.
20. Park, H, T Do, T Tomiczek, DT Cox, JW van de Lindt (2018) “Numerical Modeling of Non-breaking, Impulsive Breaking, and Broken Wave Interaction with Elevated Coastal Structures: Laboratory Validation and Inter-Model Comparisons,” *Ocean Engineering*, 158, 15, 78-98. doi: 10.1016/j.oceaneng.2018.03.088.
21. Do, K, S Shin, DT Cox, J Yoo (2018) “Numerical Simulation and Large-Scale Physical Modeling of Coastal Sand Dune Erosion,” *Journal of Coastal Research*, 85 (SP), 196-200.
22. Cho, M, S Shin, HD Yoon, DT Cox (2017) “Numerical Simulation of Tsunami Force Acting on Vertical Walls,” *Journal of Coastal Research*, 79 (SP), 289-293.
23. Park, H, DT Cox, S Shin (2017) Physical Modeling of Horizontal Force on the Inland Vertical Structure by Tsunami-like Waves,” *Journal of Korean Society of Coastal and Ocean Engineers* 29 (6), 363-368.
24. Park, H, T Tomiczek, DT Cox, JW van de Lindt W, P Lomonaco (2017) “Experimental Modeling of Horizontal and Vertical Wave Forces on an Elevated Coastal Structure,” *Coastal Engineering*, 128, 58-74.
25. Alam, MS, AR Barbosa, MH Scott, DT Cox, JW van de Lindt (2017) “Development of Physics-based Tsunami Fragility Functions considering Structural Member Failures” *J. of Structural Engineering*, 144, 3.
26. Park, H, DT Cox, MS Alam, AR Barbosa (2017) “Probabilistic seismic and tsunami hazard analysis (PSTHA) conditioned on a mega-thrust rupture of the Cascadia Subduction Zone,” *Frontiers in the Built Environment*, 3, 32.
27. Anderson, D, DT Cox, RS Mieras, JA Puleo, TJ Hsu (2017) “Observations of wave-induced pore pressure gradients and bed level response on a surf zone sandbar,” *Journal of Geophysical Research – Oceans*, 122, doi:10.1002/2016JC012557.
28. Kriebel, D, P Lynett, DT Cox, C Petroff, I Robertson, G Chock (2017) “Energy Method for Approximating Overland Flows” *Journal of Waterway, Port, Coastal and Ocean Engineering*, 143, 5, 04017014.
29. Mieras, RS, JA Puleo, D Anderson, DT Cox, TJ Hsu (2017) “Large-scale experimental observations of wave-induced sediment transport on a sandbar under skewed-asymmetric waves,” *Journal of Geophysical Research – Oceans*, DOI: 10.1002/2016JC012438.
30. Mostafizi, A, H Wang, S Dong, DT Cox, L Cramer (2017) “Agent-Based Tsunami Evacuation Modeling with Unplanned Network Disruptions for Evidence-driven Resource Allocation and Planning Strategies,” *Natural Hazards*, DOI: 10.1007/s11069-017-2927-y
31. Attary, N, JW van de Lindt, V Unnikrishnan, AR Barbosa, DT Cox (2017) “Performance-Based Tsunami Engineering Methodology for Risk Assessment of Structures,” *Engineering Structures*, 141,15, 676-686.
32. Park, H, DT Cox, AB Barbosa (2017) “Comparison of inundation depth and momentum flux based fragilities for probabilistic tsunami damage assessment and uncertainty analysis,” *Coastal Engineering*, 122, 10-26.
33. Lee, WD, DT Cox, DS Hur (2017) “Numerical model study of the wave and current control by coastal vegetation,” *Journal of Coastal Research*, 79 (sp1), 289-293.

34. Zhou, Z, TJ Hsu, DT Cox, X Liu (2016) “Large-eddy simulation of wave-breaking induced turbulent coherent structures and suspended sediment transport on a barred beach,” *Journal of Geophysical Research – Oceans*, DOI: 10.1002/2016JC011884
35. Attary, N, JW van de Lindt, V Unnikrishnan, AR Barbosa, DT Cox (2016) “Methodology for Development of Physics-Based Tsunami Fragilities,” *J. of Structural Engineering* DOI: 10.1061/(ASCE)ST.1943-541X.0001715.
36. Gidaris, I, JE Padgett, AR Barbosa, S Chen, DT Cox, B Webb, A Cerato (2016) “Multiple-Hazard Fragility and Restoration Models of Highway Bridges for Regional Risk and Resilience Assessment in the U.S.: State-of-the-Art Review,” *J. Structural Engineering* 10.1061/(ASCE)ST.1943-541X.0001672.
37. Park, H, DT Cox (2016) “Probabilistic Assessment of Near-field Tsunami Hazards: Inundation Depth, Velocity, Momentum Flux, Arrival Time, and Duration Applied to Seaside, Oregon,” *Coastal Engineering*, 117, 79-96.
38. Do, T, JW van de Lindt, DT Cox (2016) “Performance-Based Design Methodology for Inundated Elevated Coastal Structures Subjected to Wave Load Engineering Structures,” *Engineering Structures*, 117, 250-262.
39. Chen, X, J Zhan, Q Chen, DT Cox (2016) “Numerical Modeling of Hurricane-Induced Wave Forces on Movable Bridge Decks,” *Bridge Engineering* 10.1061/(ASCE)BE.1943-5592.0000922.
40. Wu, WC, G Ma, DT Cox (2016) “Modeling wave attenuation induced by the vertical density variations of vegetation,” *Coastal Engineering*, 112, 17-27.
41. Park, H, DT Cox (2015) “Empirical wave run-up formula for wave, storm surge and berm width,” *Coastal Engineering*, 115, 67-78.
42. Wu, WC, DT Cox (2015) “Effects of vertical variation in vegetation density on wave attenuation,” *Journal of Waterway, Port, Coastal and Ocean Engineering*, 142, 2.
43. Yoon, HD, DT Cox, N Mori (2015) “Parameterization of time-averaged suspending sediment concentration in the nearshore,” *Water*, 7(11), 6228-6243.
44. Wang, H, A Mostafizi, L Cramer, DT Cox, H Park (2015) “Agent-based modeling of multimodal nearfield tsunami evacuation: Decision making and life safety,” *Transportation Research Part C: Emerging Technologies*.
45. Wu, WC, DT Cox (2015) “Effects of wave steepness and relative water depth on wave attenuation by emergent vegetation,” *Estuarine, Coastal and Shelf Science*, 164, 443-450.
46. Lemein, T, DT Cox, DA Albert, N Mori (2015) “Accuracy of Optical Image Analysis Compared to Conventional Vegetation Measurements for Estimating Morphological Features of Emergent Vegetation,” *Estuarine, Coastal and Shelf Science*. 115, 66-74.
47. Feagin, RA, J Figlus, JC Zinnert, J Sigren, ML Martínez, R Silva, WK Smith, DT Cox, DR Young, G Carter (2015) “Going with the flow or against the grain? The promise of vegetation for protecting beaches, dunes, and barrier islands from erosion,” *Frontiers in Ecology and the Environment*, 13, 203-210.
48. Ko, H, DT Cox, HR Riggs, C Naito (2015) “Hydraulic Experiments on Impact Forces from Tsunami-Driven Debris,” *Journal of Waterway, Port, Coastal and Ocean Engineering*, 141, 3. DOI: 10.1061/(ASCE)WW.1943-5460.0000286.
49. Rueben, M, DT Cox, R Holman, S Shin, J Stanley (2015) “Optical Measurements of Tsunami Inundation and Debris Movement in a Large-Scale Wave Basin,” *Journal of*

Waterway, Port, Coastal and Ocean Engineering, 114, 1, 10.1061/(ASCE)WW.1943-5460.0000267.

50. Park, H, DT Cox, C Petroff (2014) “An empirical solution for tsunami runup on compound slopes,” *Natural Hazards*, 76, 1727-1743.
51. Shin, S, HD Yoon, DT Cox (2014) “Numerical Modeling of Surf Zone Hydrodynamics over a Moveable Bed,” In: Stephen, P.L. and Lee, J.L. (eds.), *Journal of Coastal Research*, Special Issue No. 72, 139-174.
52. Riggs, HR, DT Cox, C Naito, M Kobayashi, A Piran A, H Ko, E Khowitar (2014) “Experimental and analytical study of water-driven debris impact forces on structures” *J. Offshore Mechanics and Arctic Engineering*, 136, 4, doi:10.1115/1.4028338.
53. Wiebe, DM, H Park, DT Cox (2014) “Application of the Goda Pressure Formula to Horizontal Wave Loads on Elevated Structures,” *KSCE Journal of Civil Engineering*, 18, 6, 1573 – 1579, DOI 10.1007/s12205-014-0175-1.
54. Wiebe, DM, DT Cox (2014) “Application of Fragility Curves to Estimate Damage and Economic Loss at a Community Scale: A Case Study of Seaside, Oregon,” *Natural Hazards*, 71, 2043-2061.
55. Linton, DL, Gupta, R, DT Cox, JW van de Lindt (2014) “Load Distribution in Light-Frame Wood Buildings under Experimentally Simulated Tsunami Loads,” *Journal of Performance of Constructed Facilities*. 10.1061/(ASCE)CF.1943-5509.0000487.
56. Blackmar, PJ, DT Cox, WC Wu (2014) “Laboratory Observations and Numerical Simulations of Wave Height Attenuation in Heterogeneous Vegetation,” *Journal of Waterway, Port, Coastal and Ocean Engineering*, 140(1), 56-65.
57. Naito, C, C Cercone, HR Riggs, DT Cox (2013) “Procedure for Site Assessment of the Potential for Tsunami Debris Impact,” *Journal of Waterway, Port, Coastal and Ocean Engineering*. 10.1061/(ASCE)WW.1943-5460.0000222.
58. Rhinefrank, K, A Schacher, J Prudell, J Cruz, N Jorge, C Stillinger, C Naviaux, T Brekken, T, A von Jouanne, D Newborn, S Yim, DT Cox (2013) “Numerical Analysis and Scaled High Resolution Tank Testing of a Novel Wave Energy Converter,” *Journal of Offshore Mechanics and Arctic Engineering*, 135, 4, DOI: 10.1115/1.4024886.
59. Park, H, DT Cox, P Lynett, DM Wiebe, S Shin (2013) “Tsunami Inundation Modeling in Constructed Environments: A Physical and Numerical Comparison of Free-Surface Elevation, Velocity, and Momentum Flux,” *Coastal Engineering*, 79, 9-21.
60. Mori, N, DT Cox, T Yasuda, H Mase (2013) “Overview of the 2011 Tohoku Earthquake Tsunami Damage and relation with Coastal Protection along the Sanriku Coast,” *Earthquake Spectra*, 29, S1, 127-143.
61. Mase, H, Y Kimura, Y Yamakawa, T Yasuda, N Mori, DT Cox (2013) “Were Coastal Defense Structures Broken Completely by Unexpectedly Huge Tsunami - Field Survey” *Earthquake Spectra*, 29, S1, 145-160.
62. Albert, DA, DT Cox, T Lemein, HD Yoon (2013) “Characterization of *Schoenoplectus pungens* in a Great Lakes Coastal Wetland and a Pacific Northwest Estuary,” *Wetlands*, 33, 3, 445-458.
63. Yoon, HD, DT Cox, and M. Kim (2013) “Prediction model for sediment suspension using artificial neural network,” *Coastal Engineering*, 71, 78-86.

64. Linton, D, R Gupta, DT Cox, JW van de Lindt, ME Oshnack, M Clauson (2013) "Evaluation of tsunami loads on wood frame walls at full scale," *Journal of Structural Engineering*, 139, Special Issue: NEES2: Advances in Earthquake Engineering, 1318 – 1325.
65. Naito, C, DT Cox, K Yu, H Brooker (2012) "Fuel Storage Container Performance During the 2011 Tohoku Japan Tsunami," *Journal of Performance of Constructed Facilities*, 27, 4, 373-380.
66. Kim, K, H Park, S Shin, DT Cox (2012) "Three-Dimensional Laboratory Experiments for Tsunami Inundation in a Coastal City," *Journal of Korean Society of Coastal and Ocean Engineers*, 24(6), 400-403 (in Korean)
67. Park S, JW van de Lindt, DT Cox, R Gupta (2012) "Concept of Community Fragilities for Tsunami Coastal Inundation Studies," *Natural Hazards Review*, 14, 4, 220 – 228, 10.1061/(ASCE)NH.1527-6996.0000092.
68. Yoon, HD, DT Cox (2012) "Cross-shore variation of intermittent sediment suspension and turbulence induced by depth-limited wave breaking," *Continental Shelf Research*, 47, 15, 93-106.
69. Park S, JW van de Lindt, R Gupta, DT Cox. (2012) "Method to Determine Locations of Tsunami Vertical Evacuation Shelters," *Natural Hazards*, 63, 2, 891-908.
70. Park, S, JW van de Lindt, DT Cox, R Gupta, F Aguiniga (2012) "Successive earthquake-tsunami analysis to develop collapse fragilities," *Journal of Earthquake Engineering*, 16, 6, 851-863.
71. Zarnetske, PL, SD Hacker, SW Seabloom, P Ruggiero, JR Killian, TB Maddux, DT Cox (2012) "Biophysical feedback mediates effects of invasive grasses on coastal dune shape," *Ecology*, 93, 1439-1450.
72. Lehrman, JB, C Higgins, DT Cox (2012) "Performance of Highway Bridge Girder Anchorages under Simulated Hurricane Wave Induced Loads," *Journal of Bridge Engineering*, 17, 2, 259-271.
73. Thomas, S, DT Cox (2011) "Influence of Finite Width Seawalls for Tsunami Loading on Coastal Structures," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 138, 3, 203-214.
74. Bradner, C, T Schumacher, DT Cox, C Higgins (2011) "Experimental setup for a large-scale bridge superstructure model subjected to waves" *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 137, 3-11.
75. Rueben, M, R Holman, DT Cox, JR Killian, J Stanley (2010) "Optical measurements of tsunami inundation through an urban waterfront modeled in a large-scale laboratory basin" *Coastal Engineering*, 58(3): 229-238.
76. Yoon, YD, DT Cox (2010) "Large-scale laboratory observations of wave breaking turbulence on a moveable bed with vertically employed acoustic-Doppler velocimeters," *J Geophysical Research*, doi: 10.1029/2009jc005748.
77. Suzuki, T, S Shin, DT Cox, N Mori (2009). "Spatiotemporal characteristics of a pressure gradient on a barred beach," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 136, 6, 327-336.

78. Oshnack, ME, F Aguiniga, DT Cox, R Gupta, JW van de Lindt (2009) "Effectiveness of small onshore seawalls in reducing forces induced by tsunami bore: Large-scale experimental study" *J Disaster Research*, 4, 6, 382-390.
79. van de Lindt, JW, R Gupta, DT Cox, JS Wilson (2009) "Wave impact study on residential building," *J Disaster Research*, 4, 6, 419-426.
80. Scott, N.V, Hsu, T.-J, DT Cox (2009) "Steep wave, turbulence, and sediment concentration statistics beneath a breaking wave field and their implications for sediment transport," *Continental Shelf Research*, 29, 2303-2317.
81. Suzuki, T, N Mori, DT Cox (2009) "Statistical modeling of near-bed pressure gradients on a natural beach," *Coastal Engineering Journal*, 51, 20, 101-121.
82. Baldock, T, DT Cox, TB Maddux, J Killian, L Fayler (2009) "Kinematics of breaking tsunami wavefronts: A data set from large scale laboratory experiments," *Coastal Engineering* 56 (5), 506-516.
83. Yim, S, DT Cox, M Park (2009) "Experimental and Computational Activities at the Oregon State University NEES Tsunami Research facility," *Science of Tsunami Hazards*, 28, 1, 1-14.
84. Suzuki, T, S Shin, N Mori, DT Cox (2008) "Statistical modeling of pressure gradient on a barred beach," *Coastal Engineering Journal*, 50, 2, 123-142.
85. Shin, S, DT Cox (2006) "Laboratory observations of inner surf and swash zone hydrodynamics on a steep slope." *Continental Shelf Research* 26, 561-573.
86. Suh, KD, S Shin, DT Cox (2006) "Hydrodynamic characteristics of pile-supported vertical wall breakwaters." *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 2, 83-96.
87. Scott, C.P, DT Cox, TB Maddux, JW Long (2005) "Large-scale laboratory observations of turbulence on a fixed barred beach," *Meas. Sci. Technol.* 16, 1903-1912.
88. Mori, N, DT Cox (2003) "Statistical modeling of overtopping for extreme waves on fixed deck," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 129 (4): 165-173.
89. Mori, N, DT Cox (2003) "Dynamic properties of green water event in the overtopping of extreme waves on a fixed deck," *Ocean Engineering*, 30 (16): 2021-2052.
90. Cox, DT, S Shin (2003) "Laboratory measurements of void fraction and turbulence in the bore region of surf zone waves," *Journal of Engineering Mechanics*, 129(10), 1197-1205.
91. Cox, DT, JA Ortega (2002) "Laboratory measurements of green water overtopping a fixed deck," *Ocean Engineering*, 29, 1827-1840.
92. Cox, DT, P Tissot, P Michaud, P. (2002) "Water level observations and short-term predictions including meteorological events for the entrance of Galveston Bay, Texas," *Journal of Waterway, Port, Coastal, and Ocean Engineering*. 128, 1, 21-29.
93. Cox, DT, SL Anderson (2001) "Statistics of intermittent surf zone turbulence and observations of large eddies using PIV," *Coastal Engineering Journal*, 43, 2, 121-131.
94. Cox, DT, CP Scott (2001) "Exceedance probability for wave overtopping on a fixed deck," *Ocean Engineering*, 28, 707-721.
95. Cox, DT, N Kobayashi (2000) "Identification of Intense, Intermittent Coherent Motions under Shoaling and Breaking Waves," *Journal of Geophysical Research*, 105, C6, 14223-14236.

96. Cox, DT, N Kobayashi (1998) "Application of an Undertow Model to Irregular Waves over Plane and Barred Beach," *Journal of Coastal Research*, 14 (4), 1314-1324.
97. Cox, DT, N Kobayashi (1997) "Kinematic Undertow Model with Logarithmic Boundary Layer," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, ASCE, 123 (6), 354-360.
98. Cox, DT, N Kobayashi, A Okayasu (1996) "Bottom Shear Stress in the Surf Zone," *Journal of Geophysical Research*, 101 (C6), 14337-14348.
99. Kobayashi, N, DT Cox, A Wurjanto (1991) "Permeability Effects on Irregular Wave Runup and Reflection," *Journal of Coastal Research*, 7(1), 127-136.
100. Kobayashi, N, DT Cox, A Wurjanto (1990) "Irregular Wave Reflection and Runup on Rough Impermeable Slopes," *Journal of Waterway, Port, Coastal, and Ocean Engineering*, 116(6), 708-726.
101. Kobayashi, N, A Wurjanto, DT Cox (1990) "Irregular Waves on Rough Permeable Slopes," *Journal of Coastal Research*, SI(7), 167-184.

6.3 Chapters in Books

1. Cramer, L, DT Cox, H Wang, "Enhancing a Culture of Preparedness for the Next Cascadia Subduction Zone Tsunami," In: *Coastal Heritage and Cultural Resilience*, L.L. Price and N.E. Narchi (eds.), Springer, 243 – 264.
2. Mori, N, K Goda, DT Cox "Recent Progress in Probabilistic Tsunami Hazard Assessment (PTHA) for Mega Thrust Subduction Earthquakes," (2018) In: *The 2011 Japan Earthquake and Tsunami: Reconstruction and Restoration. Insights and Assessment after 5 years*, Adv. Natural, Tech. Hazards, Vol. 47, Springer, ISBN 978-3-319-58690-8.
3. Leuttich, RA, GB Baecher, SB Bell, PR Berke, RB Corotis, DT Cox, RA Dalrymple, T MacDonald, KF Nordstrom, S Polasky, SP Powers, D Resio, A van Dongeren (2014) *Reducing the Risk on the East and Gulf Coast*, National Academies Press, Washington DC.
4. Mori, N, S Kakuno, DT Cox (2009) "Aeration and Bubbles in the Surf Zone," *Handbook of Coastal and Ocean Engineering*, Y.C. Kim (ed.), 115-130.
5. Briggs, M, H Yeh, DT Cox (2009) "Physical Modeling of Tsunami Waves," *Handbook of Coastal and Ocean Engineering*, Y.C. Kim (ed.), 1073-1106.

6.4 Conference Proceedings and Abstracts

1. Suzuki, T, DT Cox (2019) "A Laboratory Study of Mixed-Sediment Transport due to Inundation Flow," Proc. of Coastal Engineering Conference, JSCE (in Japanese).
2. Chen, M, SC Yim, DT Cox, T Mumford, M Huesemann, Z Yang, T Whan, G Wood (2019) "Hydrodynamic Load Modeling for Offshore Free-Floating Macroalgal Acquaculture Under Extreme Environmental Conditions," Proceedings of the ASME 2019 38th International Conference on Ocean, Offshore and Arctic Engineering.
3. Alam, MS, AR Barbosa, MH Scott, DT Cox, JW van de Lindt (2019) "Multi-hazard Earthquake-Tsunami Structural Fragility Assessment Framework," 13th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP13 Seoul, South Korea, May 26-30.
4. van de Lindt, JW, B Ellingwood, P Gardoni, JS Lee, T McAllister, DT Cox, H Cutler, and W Peacock, (2019) "The Structures of the Interconnected Networked Community Resilience Modeling Environment," ICONHIC-2019.

5. van de Lindt, JW, B Ellingwood, T McAllister, P Gardoni, DT Cox, W Peacock, H Cutler, H, M Dillard, JS Lee, L Peek, MH Scott, J Mitrani-Reisner, J. (2018) "Modeling Community Resilience: Update on the Center for Risk-Based Community Resilience Planning and the Computational Environment IN-CORE," 17th U.S.-Japan-New Zealand Workshop on the Improvement of Structural Engineering and Resilience.
6. Do, T, JW van de Lindt W, DT Cox (2018) "Physic-Based Component Fragility Model for Near-Coast Residential Wood Building Subjected to Hurricane Wave and Surge" Engineering Mechanics Institute Conference 2018, Cambridge MA.
7. Kameshwar, S, AR Barbosa, DT Cox (2018) "Surrogate model based tsunami fragility and sensitivity analysis of a three story steel building" Engineering Mechanics Institute Conference 2018, Cambridge MA.
8. Park, H, Do, T Tomiczek, DT Cox, JW van de Lindt (2018) "Laboratory Validation and Inter-Model Comparisons of Non-breaking, Impulsive Breaking, and Broken Wave Interaction with Elevated Coastal Structures," *International Conference on Coastal Engineering*, ASCE, 1, 31.
9. Tomiczek, T, A Wyman, H Park, DT Cox (2018) "Application and modification of Goda Formulae for Non-impulsive Wave Forces on Elevated Coastal Structures," *International Conference on Coastal Engineering*, ASCE, 1, 48.
10. Mieras, RS, JA Puleo, D Anderson, DT Cox, TJ Hsu, J Calantoni (2018) "Observations of Horizontal and Vertical Sediment Fluxes on a Sandbar in the Suspended and Sheet Flow Layers," *International Conference on Coastal Engineering*, ASCE, 1, 30.
11. Cox, DT, H Park, MS Alam, AR Barbosa (2018) "Probabilistic Tsunami Hazard Assessment and Damage Estimation of the Built Environment: Application to the Cascadia Subduction Zone and Seaside, Oregon," *International Conference on Coastal Engineering*, ASCE, 1, 94.
12. Lomonaco, P, P Arduino, AB Barbosa, DT Cox, T Do, M Eberhard, M Motley, K Shekhar, T Tomiczek, H Park, JW van de Lindt, A Winter (2018) "Experimental Modeling of Wave Forces and Hydrodynamics on Elevated Coastal Structures Subject to Waves, Surge or Tsunamis: The Effect of Breaking, Shielding and Debris," *International Conference on Coastal Engineering*, ASCE, 1, 53.
13. Mori, N., T Shimozono, T Arikawa, D Inazu, T Shimura, A Kennedy, DT Cox (2018) "Numerical Model of Short and Long Term Waves and Surges by Hurricane Irma and Maria in US Virgin Islands," *International Conference on Coastal Engineering*, ASCE, 1, 59.
14. Suzuki, T, Y Inami, S Yanagishima, S Sakimaha, DT Cox (2018) "Observations of Sediment Particle Movements Under Accretive Wave Conditions," *International Conference on Coastal Engineering*, ASCE, 1, 68.
15. Cox DT, A Barbosa, G Guannel, A Kennedy, C Simpson, R Slocum, N Mori, T Arikawa, D Inazu, T Shimura, T Shimozono, T Kijewski-Cirrea, C Parrish (2018) "Hurricanes Irma/Maria in the USVI: Joint JSCE-NSF Field Reconnaissance and the use of UAVs for Geospatial Disaster Data," *International Conference on Coastal Engineering*, ASCE, 1, 60.
16. Shin S, K Do, DT Cox (2018) "Process based numerical modeling and laboratory experiments on the morphological change of coastal sand dune," *International Conference on Coastal Engineering*, ASCE, 1, 36.

17. Gidaris, I, JE Padgett, N Rosenheim, T Johnson, W Peacock, DT Cox (2018) "Hurricane risk assessment of coupled human-physical-social systems in Galveston, TX" *9th International Conference on Bridge Maintenance, Safety and Management*.
18. Mostafizi, A, H Wang, DT Cox, S Dong (2018) "An Agent-based Model of Vertical Tsunami Evacuation Behavior and Shelter Locations: A Multi-Criteria Decision-Making Problem," *Transportation Research Board, Annual Meeting*, 18-06293.
19. Capozzo, M, A Rizzi, IP Cimellaro, AR Barbosa, DT Cox (2017) "Earthquake and Tsunami Resiliency Assessment for a Coastal Community in the Pacific Northwest, USA," *Structures Congress*, 122-133
20. Mori, N, K Goda, DT Cox (2017) "Overview of Probabilistic Tsunami Hazard Assessment and Its Application," *International Tsunami Symposium*, Bali.
21. Do, T, Johnson, T, JW van de Lindt, DT Cox (2017) "Development of Physics-based Building Fragility Surfaces for Near-coast Community Modeling," *International Conference on Coastal and Ocean Engineering*, Osaka, Japan.
22. Higgins, C, DT Cox, P Lomonaco (2017) "NHERI Experimental Facility for Tsunami and Coastal Windstorms," *World Conference on Earthquake Engineering*, Santiago, Chile, Jan 9-13.
23. Mieras, RS, JA Puleo, DL Anderson, DT Cox, TJ Hsu (2017) "Large-scale experimental observations of wave-induced sediment transport over a surf zone sandbar," *Coastal Dynamics 2017*.
24. Xiong, Y, Q Liang, R Amouzgar, DT Cox, N Mori, G Wang, J Zheng (2016) "High-Performance Simulation of Tsunami Inundation and Impact on Building Structures," *ISOPE*, 732-738.
25. Anderson, DL, DT Cox, RS Mieras, JA Puleo, TJ Hsu (2016) "Instantaneous Sediment Bed Level Response to Wave-induced Pore-pressure Gradients on a Surfzone Sandbar," *AGU Fall Meeting Abstracts*.
26. Mieras, RS, JA Puleo, D Anderson, DT Cox, TJ Hsu (2016) "From the sand bed to the free surface: an experimental study of wave-induced sediment transport over a sandbar," *AGU Fall Meeting Abstracts*.
27. Xiong, Y, Q Liang, R Amouzgar, DT Cox, N Mori, G Wang, J Zheng (2016) "High-Performance Simulation of Tsunami Inundation and Impact on Building Structures," *The 26th International Ocean and Polar Engineering Conference*.
28. Chen, YG, Y Chen, B Weber, J Reimer, DT Cox, P Corcoran, H Park (2016) "An Integrated Engineering-Economic Model for Assessing Regional Vulnerability to Natural Disasters," *Resources For the Future Discussion Papers*.
29. Cox, DT, H Wang, LA Cramer, A Mostafizi, H Park (2016) "An Agent-Based Modeling Approach to Integrate Tsunami Science, Human Behavior, and Unplanned Network Disruptions for Nearfield Tsunami Evacuation," *AGU Fall Meeting Abstracts*.
30. Mieras, RS, JA Puleo, DT Cox, DL Anderson, Y Kim, TJ Hsu (2016) "Sheet flow measurements on a surf-zone sandbar under shoaling and breaking waves," *AGU, Ocean Sciences Meeting Abstracts*.
31. Zhou, Z, TJ Hsu, DT Cox, X Liu (2015) "Large Eddy simulation of wave-breaking induced turbulent coherent structure and suspended sediment transport on a barred beach,"

Conference on Model Integration across Disparate Scales in Complex Turbulent Flow Simulation, Penn State.

32. Yoon, HD, MS Cho, S Shin, K Cho, DT Cox (2015) "Numerical Modeling on the Hydrodynamics of Surf Zone over Movable Beach Profiles," *Twenty-fifth International Ocean and Polar Engineering Conference*.
33. van de Lindt, JW, BR Ellingwood, T McAllister, P Gardoni, DT Cox (2015) "Computational environment for modeling and enhancing community resilience: Introducing the center for risk-based community resilience planning," *International Conference on Performance-based and Life-cycle Structural Engineering*.
34. Cox, DT, H Park, A Mostafizi, H Wang, and LA Cramer (2015) "Tsunami Inundation Modeling for Life Safety and Civil Infrastructure Damage: Application to the Cascadia Subduction Zone and Newport, Oregon" *Coastal Structures and Solutions to Coastal Disasters Joint Conference*, ASCE/COPRI, Boston.
35. Wang, H, A Mostafizi, DT Cox (2014) "A Multimodal Near-field Tsunami Evacuation: An Agent-based model simulation of Seaside, Oregon," *International Conference on Evacuation Modeling and Management*.
36. Chen, YG, Y Chen, B Weber, P Corcoran, DT Cox, H Park, J Reimer (2014) "An Integrated Engineering-Economic Vulnerability Assessment Tool - An Assessment of Tsunami Impact on Coastal Communities," Agricultural and Applied Economics Association Annual Meeting, Minneapolis, Minnesota
37. Park, H, DT Cox, D Wiebe (2014) "Tsunami Inundation Modeling: Sensitivity of Velocity and Momentum Flux to Bottom Friction with Application to Building Damage at Seaside, Oregon," *International Conference on Coastal Engineering*, ASCE.
38. Shin, S, HD Yoon, DT Cox (2014) "Large-scale laboratory experiments and numerical simulations of cross-shore morphological changes under erosive and accretive beach conditions," *International Conference on Coastal Engineering*, ASCE.
39. Yoon, HD, DT Cox, DA Albert, N Mori, H Smith, P Blackmar (2014) "Vertical structure of wave induced currents, orbital velocity, and turbulence observed in natural vegetation," *International Conference on Coastal Engineering*, ASCE.
40. Lemein, T, DT Cox, DA Albert (2013) "The Relationship of Salt Marsh Vegetation Lateral Obstruction to Vegetation Morphology," AGU Fall Meeting Abstracts.
41. Higgins C, J Lehrman, C Bradner, T Schumacher, DT Cox (2013) "Hybrid Testing of a Prestressed Girder Bridge to Resist Wave Forces," *Proceedings 29th US-Japan Bridge Engineering Workshop*, Tsukuba, Japan.
42. Blackmar, P, DT Cox, DA Albert, N Mori, H Smith, WC Wu (2013) "Full-scale Experiment and Numerical Model Investigation of Wave Height Attenuation through Emergent Vegetation," *Proc. of National Coastal Conference of the American Shore and Beach Preservation Association*, Texas.
43. Ko, H, DT Cox, HR Riggs, C Naito, M Kobayashi (2013) "Hydraulic Experiments on Impact Forces from Tsunami-Driven Debris," Conference Proceedings, Network for Earthquake Engineering Simulation (NEES) *Quake Summit 2013*, Reno, NV.
44. Aguiñiga, F, M Jaiswal, JO Sai, DT Cox, R Gupta, JW van de Lindt (2013) "Experimental study of tsunami forces on structures," Engineering Mechanics Conference, 111-118.

45. Shin, S, DT Cox, B Shin, K Kim (2013) "Numerical modeling of wave loads on bridge superstructures in comparisons with large-scale laboratory experiments" *12th International Coastal Symposium*, April, UK.
46. Park, S, JW van de Lindt, R Gupta, DT Cox (2013) "Fragility risk assessment and methodology for cascading earthquake-tsunami hazard," *Conference of the Engineering Mechanics Institute*, ASCE.
47. Yoon, H, S Shin, DT Cox, C Pyun, (2013) "Numerical Simulation of Hydrodynamics in the Surf Zone over a Moveable Bed in CROSSTEX Experiment" *23th International Ocean and Polar Engineering Conference*, July, 2013, Alaska, USA.
48. Riggs, HR, DT Cox, C Naito, M Kobayashi, P Piran Aghl, H Ko, E Khowitar (2013) "Water-driven debris impact forces on structures: experimental and theoretical program," *32nd Intl. Conf. on Ocean, Offshore and Arctic Engineering*, ASME, OMAE2013-11128.
49. Shin, S, KH Lee, H Park, K Kim, DT Cox (2012) "Influence of Infrastructure on Tsunami Inundation in a Coastal City: Laboratory Experiments and Numerical Simulation," *International Conference on Coastal Engineering*, ASCE.
50. Yoon, HD, DT Cox (2012) "Intermittent Characteristics of Turbulence and Sediment Suspension in the Surf Zone: Observations and Predictions," *International Conference on Coastal Engineering*, ASCE.
51. Lemein, T, DT Cox, DA Albert, P Blackmar (2012) "Wave Velocity Attenuation and Sediment Retention among Different Vegetation Types in a Pacific Northwest Estuary," AGU Fall Meeting Abstracts.
52. Wiebe, D, DT Cox, Y Chen, B Weber, B, YG Chen (2012) "Estimated damage from the Cascadia Subduction Zone tsunami: A model comparisons using fragility curves," AGU Fall Meeting Abstracts.
53. Ko, H, DT Cox, H Riggs, CJ Naito, MH Kobayashi, P Piran Aghl (2012) "Impact Forces from Tsunami-Driven Debris," AGU Fall Meeting Abstracts.
54. Lynett, PJ, DT Cox, H Park, DM Wiebe (2012) "Overland Tsunami Flow through Complex Topography," AGU Fall Meeting Abstracts.
55. Schumacher, TA, DT Cox (2011) "Dynamic Response of a Large Scale Prestressed Concrete Girder Bridge Subjected to Hurricane Wave Forces," *American Concrete Institute*, Tampa Bay, FL.
56. Higgins, CC, DT Cox (2011) "Behavior of Superstructure to Substructure Connections under Simulated Hurricane Wave Induced Loads," *American Concrete Institute*, Tampa Bay, FL.
57. Bridges, K, DT Cox, S Thomas, S Shin, M Rueben (2011) "Large-Scale Wave Basin Experiments on the Influence of Large Obstacles on Tsunami Inundation Forces," *Coastal Structures '11*, ASCE, Yokohama, Japan.
58. Yoon, HD, DT Cox, DA Albert, N Mori, H Smith (2011) "Ecological Modeling of Emergent Vegetation for Sustaining Wetlands in High Wave Energy Coastal Environments," *Coastal Structures '11*, ASCE, Yokohama, Japan.
59. Chakrabarti, A, HD Smith, DT Cox, DA Albert (2011) "Field scale investigation of the interaction of sediment and turbulent structures in an emergent vegetative layer under wave forcing," *Proc. Coastal Sediments*, 2519-2532.

60. Cox, DT, C Naito, K Yu, N Mizutani, D Tsujio, D. (2011) "Observations of Debris Impact on Buildings and Infrastructure after the 2011 Tohoku Tsunami," AGU Fall Meeting Abstracts.
61. Aguiñiga, F, DT Cox, R Gupta, M Jaiswala, JO Sai, JW van de Lindt (2010) "Experimental Study of Tsunami Forces on Structures," *Engineering Mechanics Institute Conference*, EMI 89-90.
62. Schumacher, T, CC Higgins, C Bradner, DT Cox (2010) "Dynamic Response of a Large-Scale Prestressed Concrete Girder Bridge Subjected to Hurricane Wave Forces," *American Concrete Institute Conference*.
63. Higgins, C, JB Lehrman, DT Cox (2010) "Behavior of Superstructure-to-Substructure Connections Under Simulated Hurricane Wave Induced Loads," *American Concrete Institute Conference*.
64. Wilson, J, R Gupta, JW van de Lindt, DT Cox (2010) "Surge Wave Loading on Wood Structures," *Proceedings of the 53rd International Convention of the Society of Wood Science and Technology*, Geneva, Switzerland.
65. Rhinefrank, K, A Schacher, J Prudell, J Cruz, N Jorge, C Stillinger, D Naviaux, T Brekken, A von Jouanne, D Newborn, S Yim, DT Cox (2010) "Numerical and experimental analysis of a novel wave energy converter," *International Conference on Offshore Mechanics and Arctic Engineering*.
66. Rhinefrank, K, A Schacher, J Prudell, D Naviaux, C Stillinger, T Brekken, A von Jouanne, A, D Newborn, S Yim, DT Cox (2010) "High resolution wave tank testing of scaled wave energy devices," *International Conference on Offshore Mechanics and Arctic Engineering*.
67. Yoon, H, DT Cox, DA Albert, N Mori, HD Smith (2010) "Vertical structure of fluid velocity for flow through vegetation under waves," AGU Fall Meeting Abstracts.
68. Brucker, KA, MB Oshnack, TT O'Shea, DT Cox, DG Dommermuth (2010) "Numerical Prediction of Wave Forces on a Breakwater under Tsunami Loading," *APS Division of Fluid Dynamics Meeting Abstracts*.
69. Gupta, R, DT Cox (2010) "Surge wave loading on wood structures," *Proceedings of the International Convention of Society of Wood Science and Engineering*.
70. Schumacher, T, C Higgins, C Bradner, DT Cox (2009) "Large-scale laboratory wave flume experiments on highway bridge superstructures exposed to wave forces," *Structures Congress*, ASCE, Austin, TX.
71. Newborn, D, N Sultan, P Beynet, TB Maddux, S Shin, DT Cox (2009) "Experimental Observations and Numerical Simulations of Wave Impact Forces on Recurved Parapets Mounted Above a Vertical Wall," *ASME 2009 28th International Conference on Ocean, Offshore and Arctic Engineering*.
72. Schumacher, T, C Higgins, C Bradner, DT Cox, S Yim (2008) "Large-Scale Wave Flume Experiments on Highway Bridge Superstructures Exposed to Hurricane Wave Forces," *6th National Seismic Conference on Bridges and Highways*, Charleston, South Carolina.
73. Schumacher, T, C Higgins, C Bradner, C, DT Cox (2008) "New innovative large-scale laboratory setup for experiments on highway bridge superstructures exposed to wave forces," *Concrete Bridge Conference*, St. Louis, Missouri, National Concrete Bridge Council, 1421 – 1432.

74. Cox, DT, T Tomita, P Lynett, RA Holman (2008) "Tsunami inundation with macro-roughness in the constructed environment," *31st International Conference on Coastal Engrg*, ASCE, 1421 – 1432.
75. Bradner, C, T Schumacher, DT Cox, C Higgins (2008) "Large-scale laboratory measurements of wave forces on highway bridge superstructures," *31st International Conference on Coastal Engrg*, ASCE, 3554-3566.
76. Zarnetske, PL, EW Seabloom, P Ruggiero, SD Hacker, J Killian, TB Maddux, DT Cox (2008) "Coastal Dune Building Capabilities of Native and Exotic Beach Grasses: Initial Results From a Moveable Bed Wind Tunnel Experiment," AGU Fall Meeting Abstracts.
77. Suzuki, T, S Shin, DT Cox, N Mori (2007) "Spatial Variation of a Pressure Gradient on a Barred Beach and its Statistical Modeling," *Proc. Coastal Engineering*, JSCE, 54, 86-90 (in Japanese).
78. Ruggiero, P, TB Maddux, G Kaminsky, M Palmsten, RA Holman, DT Cox (2007) "Field and Laboratory Investigations of Coastal Dune Morphodynamics," AGU Fall Meeting Abstracts.
79. Scott, CP, DT Cox, S Shin, TB Maddux (2006) "The Role of Wave Breaking Turbulence in Sediment Suspension Observed During CROSSTEX," *30th International Conference on Coastal Engrg*, ASCE, 2537-2546.
80. Shin, S, DT Cox, IC Kim, S Yim, (2006), "Wave Transformation, Impact, and Overtopping on a Rubble Mound Breakwater: Large-scale Measurements and Numerical Modeling," *30th International Conference on Coastal Engrg*, ASCE, 4580-4591.
81. Tirindelli, M, S Fenical, V Shepsis, DT Cox, C Torres (2006) "Keystone Harbor, WA: Coastal Engineering for Design of New Ferry Terminal," *30th International Conference on Coastal Engrg*, ASCE, 4871-4882.
82. Maddux, TB, P Ruggiero, M Palmsten, RA Holman, DT Cox (2006) "Laboratory Observations of Dune Erosion," AGU Fall Meeting Abstracts
83. Hsu, T, B Raubenheimer, J Trowbridge, DT Cox, D Hanes (2006) "Modeling surf zone hydrodynamics and sediment transport-toward an integrated approach," AGU Fall Meeting Abstracts.
84. Maddux, T, CP Scott, DT Cox (2004) "Laboratory observations of waves and turbulence over a barred beach," AGU Fall Meeting Abstracts
85. Shin, S, T Suzuki, W Boylston, DT Cox (2004) "Pressure Gradients on a Barred Beach," AGU Fall Meeting Abstracts.
86. Scott, CP, DT Cox, S Shin, N Clayton (2004), "Estimates of surf zone turbulence in a large-scale laboratory flume," *29th International Conference on Coastal Engrg*, ASCE, 379-391.
87. Tissot, P, DT Cox, A Sadoski, P Michaud, S Duff (2004) "Performance and Comparison of Water Level Forecasting Models for the Texas Ports and Waterways," *Ports 2004: Port Development in the Changing World*, ASCE, 1-10.
88. Yim, S, H Yeh, DT Cox (2004) "International Collaborative Tsunamis, Storm Surge, and Wave-Structure Interaction Research Opportunities Using the Oregon State Multidirectional Wave Basin and Large Wave Flume," *Proceedings of the 36th Joint Panel Meeting on Wind and Seismic Effects*.

89. Yim, S, H Yeh, DT Cox, C Pancake (2004) "A shared-use large-scale multidirectional wave basin for tsunami research," *Proc. of the 13th World Conference on Earthquake Engineering*.
90. Cox, DT, SL Anderson (2004) "Intermittency in surf zone turbulence and observations of large-scale eddies using PIV," *Advances in Coastal and Ocean Engineering*, 9, 314.
91. Suzuki, T, A Okayasu, DT Cox, H Katayama, N Mori (2003) "Field measurement on intermittent sediment suspension and fluid motion due to wave breaking," *Coastal Sediments Conference*.
92. Yim, S, H Yeh, DT Cox, C Pancake (2003) "NEES Multidirectional Wave Basin for Tsunami Research," *Coastal Structures '03*, ASCE, 911-923.
93. Yim, S, DT Cox, C Sollitt, C Pancake, H Yeh (2003) "A unique large scale, multi-directional basin for tsunami research," EGS-AGU-EUG Joint Assembly.
94. Tissot, PE, DT Cox, PR Michaud (2003) "Optimization and performance of a neural network model forecasting water levels for the Corpus Christi, Texas, Estuary," *3rd Conference on the Applications of Artificial Intelligence*, AMS.
95. Mori, N, DT Cox (2002) "Statistical modeling of overtopping on a deck," *Proc. 12th Int. Offshore and Polar Engineering Conf*, ISOPE, 217-224.
96. Patrick, AR, WG Collins, PE Tissot, A Drikitis, J Stearns, P Michaud, DT Cox (2002) "Use of the NCEP mesoeta data in a water level predicting neural network," *Proc. of 19th AMS Conf. on Weather Analysis and Forecasting/15th AMS Conf. on Numerical Weather Prediction*, American Meteorological Society.
97. Dalrymple, RA, OM Knio, DT Cox (2001) "Using a Lagrangian Particle Method (SPH) for Deck Overtopping," *Proc. Fourth International Symposium on Ocean Wave Measurement and Analysis (Waves '01)*, ASCE, 1082-1091.
98. Choi, HJ, DT Cox, MH Kim, S Ryu (2001) "Laboratory Investigation of Nonlinear Irregular Wave Kinematics," *Proc. Fourth International Symposium on Ocean Wave Measurement and Analysis (Waves '01)*, ASCE, 1685-1694.
99. Nam, YJ, DT Cox, P Tissot, P Michaud (2001) "Observations and predictions of tides and storm surges along the Gulf of Mexico," *Proc. Fourth International Symposium on Ocean Wave Measurement and Analysis (Waves '01)*, ASCE, 2, 1625-1633.
100. Tissot, P, DT Cox, P Michaud (2001) "Neural network forecasting of storm surges along the Gulf of Mexico," *Proc. Fourth International Symposium on Ocean Wave Measurement and Analysis (Waves '01)*, ASCE, 2, 1535-1544.
101. Guannel, G, P Tissot, DT Cox, P Michaud (2001) "Local and Remote Forcing of Subtidal Water Level and Setup Fluctuations in Coastal and Estuarine Environments," *Proc. Coastal Dynamics '01*, ASCE, 443-452.
102. Cox, DT, W Hobensack, A Sukumaran (2000) "Bottom Stress in the Inner Surf and Swash Zone" *Proc. of 27th International Conference on Coastal Engrg*, ASCE, 108-119.
103. Carter, J, W Hobensack, DL Kennedy, DT Cox (1998) "Wind Effects on Wave Transformation and Undertow," *Proc. Ocean Wave Kinematics Dynamics and Loads on Structures*, 439-445.
104. Cox, DT, N Kobayashi (1998) "Coherent Motions in the Bottom Boundary Layer under Shoaling and Breaking Waves," *Proc. of 26th International Conference on Coastal Engrg*, ASCE, 457-470.

105. Kennedy, DL, DT Cox, N Kobayashi (1998) "Application of a Kinematic Undertow Model to Irregular waves on Barred Beaches and Reflective Coastal Structures," *Proc. of 26th International Conference on Coastal Engrg*, ASCE, 311-324.
106. Rathbun, J, DT Cox, BL Edge (1998) "Irregular Wave Runup on Coastal Structures in Depth-Limited Conditions," *Proc. of 26th International Conference on Coastal Engrg*, ASCE, 1053-1067.
107. Randall, RE, BL Edge, DT Cox (1998) "Laboratory Needs for Dredging and Dredged Material Disposal," *Proc. WODCON '98*, 1, 17-30.
108. Kennedy, DL, J Rathbun, DT Cox, BL Edge (1997) "Irregular Wave Undertow for Coastal Revetments in the Surf Zone," *Proc. of Waves '97, 3rd Int. Symp. on Oc. Wave Meas. and Analy*, 1115-1128.
109. Cox DT and N Kobayashi (1996) "Undertow Profiles in the Bottom Boundary Layer under Breaking Waves," *Proc. of 25th International Conference on Coastal Engrg*, ASCE, 3, 3194-3206.
110. Johnson, BD, N Kobayashi, DT Cox (1996) "Formulation and Validation of Vertically 2-D Shallow-Water Wave Model," *Proc. of 25th Coastal Engineering Conf*, ASCE, 1, 551-564.
111. Cox, DT, N Kobayashi, A Okayasu (1994) "Vertical Variations of Fluid Velocities and Shear Stress in Surf Zones," *Proc. of 24th International Conference on Coastal Engrg*, ASCE, 1, 98-112.
112. Cox, DT, N Kobayashi, D Kriebel (1994) "Numerical Model Verification using SUPERTANK Data in Surf and Swash Zones," *Proc. of Coastal Dynamics '94*, 248-262.
113. Sakai, T, H Mase, DT Cox, Y Ueda (1993), "Field Observation of Wave-Induced Porewater Pressures," *Proc. of 3rd International Offshore and Polar Engineering Conf*.
114. Cox, DT, N Kobayashi, A Wurjanto (1992) "Irregular Wave Transformation Processes in Surf and Swash Zones," *Proc. of 23rd International Conference on Coastal Engrg*, ASCE, 1, 156-169.
115. Sakai, T, H Mase, DT Cox, Y Ueda (1992), "Field Observation of Wave-Induced Transient Porewater Pressure in Seabed," *Proc. of 23rd International Conference on Coastal Engrg*, ASCE, 2, 2397-2410.
116. Cox, DT, N Kobayashi, H Mase (1991) "Effects of Fluid Accelerations on Sediment Transport in Surf Zones," *Proc. of Coastal Sediments 91*, ASCE, 447-461.
117. Mase, H, DT Cox, H Tateyama, T Sakai (1991) "Random Wave Pressures and Their Horizontal Gradients at Mudline," *Symposium of Civil Engineering in the Ocean*, JSCE, 7, 289-294 (in Japanese).
118. Sakai, T, H Mase, DT Cox, Y Ueda (1991) "Field Observation of Wave-Induced porewater Pressure in Seabed," *Proc. of 38th Japanese Conference on Coastal Engrg*, JSCE, 816-820 (in Japanese).
119. Kobayashi, N, A Wurjanto, DT Cox (1990) "Rock Slopes under Irregular Wave Attack," *Proc. of 22nd International Conference on Coastal Engrg*, ASCE, 1306-1319.

6.5 Magazine Articles

1. Naito, C, DT Cox, and Yu, Q.-S. (2011) "Impact of tsunami generated debris during the 2011 Tohoku Japan Tsunami," *Structural Engineer*, November issue.

7. Conference Presentations and Invited Lectures and Presentations

7.1 Conference Presentations

1. “Experimental and Numerical Study to Improve Damage and Loss Estimation due to Overland Wave and Surge Hazards on Near-Coast Structures” Keynote presentation for *Lessons Learned and Best Practices: Resilience of Coastal Structure Conference*, Puerto Rico, 2017.
2. “Physical modelling of tsunami and hurricane surge hazards to increase community resilience,” *CoastaLab 2016*, Ottawa, Canada.
3. “Tsunami Inundation Modeling for Life Safety and Infrastructure Damage: Application to the Cascadia Subduction Zone and Seaside, Oregon,” *Joint Conference of Solutions to Coastal Disasters and Coastal Structures '15*, Boston, 2015.
4. “Tsunami Inundation Modeling: Sensitivity of Velocity and Momentum Flux to Bottom Friction with Application to Building Damage at Seaside, Oregon,” *34th International Conference on Coastal Engrg*, Seoul, Korea, 2014.
5. “Observations and Predictions of Intermittent Sediment Suspension in the Surf Zone,” *3rd International Symposium on Rip Current*, Busan, Korea, 2014.
6. “Intermittent Turbulence and Sediment Suspension in the Surf Zone and Implications for Onshore Sediment Transport,” *Ocean Sciences*, AGU, Salt Lake City, 2012.
7. “Large-Scale Wave Basin Experiments on the Influence of Large Obstacles on Tsunami Inundation Forces,” *Coastal Structures '11*, ASCE, Yokohama, Japan, 2011.
8. “Tsunami inundation with macro-roughness in the constructed environment,” *31st International Conference on Coastal Engrg*, Hamburg, Germany, 2008.
9. “The role of vertical evacuation in saving lives in tsunami disasters,” *Network for Earthquake Engineering Annual Meeting*, Portland, OR, 2008.
10. “NEES Tsunami Facility Spotlight: Wavemaker facility enhancement for large-scale testing of tsunami and hurricane wave forces,” *Network for Earthquake Engineering Annual Meeting*, Portland, OR, 2008.
11. “Pore-pressure in rubble mound structures: RANS modeling and comparisons to large-scale experiments,” *Coastal Structures '07*, Venice Italy, 2007.
12. “The Role of Wave Breaking Turbulence in Sediment Suspension Observed During CROSSTEX,” *27th International Conference on Coastal Engrg*, San Diego, California, 2006.
13. “NEES Multidirectional Wave Basin for Tsunami Research,” *Coastal Structures '03*, Portland, Oregon, 2003.
14. “Observations and Predictions of Tides and Storm Surges Along the Gulf of Mexico,” *Waves '01*, San Francisco, California, 2001.
15. “Local and Remote Forcing of Subtidal Water Level and Setup Fluctuations in Coastal and Estuarine Environments,” *Coastal Dynamics '01*, Lund, Sweden, 2001.
16. “Bottom Stress in the Inner Surf and Swash Zone,” *27th International Conference on Coastal Engrg*, Sydney, Australia, 2000.
17. “Coherent Motions in the Bottom Boundary Layer under Shoaling and Breaking Waves,” *26th International Conference on Coastal Engrg*, Copenhagen, Denmark, 1998.

18. "Application of an Undertow Model to Irregular waves on Barred Beaches and Reflective Coastal Structures," *26th International Conference on Coastal Engrg*, Copenhagen, Denmark, 1998.
19. "Undertow Profiles in the Bottom Boundary Layer under Breaking Waves," *25th International Conference on Coastal Engrg*, Orlando, Florida, 1996.
20. "Bottom Shear Stress and Undertow Profile Measurements Under Breaking Waves," *American Geophysical Union, Fall Meeting*, San Francisco, 1995.
21. "Vertical Variations of Fluid Velocities and Shear Stress in Surf Zones," *24th International Conference on Coastal Engrg*, Kobe, Japan, 1994.
22. "Numerical Model Verification using SUPERTANK Data in Surf and Swash Zones," *Coastal Dynamics '94*, Barcelona, Spain, 1994.
23. "Irregular Wave Transformation Processes in Surf and Swash Zones," *23rd International Conference on Coastal Engrg*, Venice, Italy, 1992.
24. "Effects of Fluid Accelerations on Sediment Transport in Surf Zones," *Coastal Sediments '91*, Seattle, Washington, 1991.

7.2 Invited Seminars and Presentations

1. "Should I Stay or Should I go? Tsunami Evacuation and Decision-Making for the M9 Cascadia Subduction Zone Event." Keynote presentation for the *2015 Science on a Sphere Users Collaborative Network Workshop*, Portland, OR, 2015.
2. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Kyoto University*, Japan, 2011.
3. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Naha University*, Okinawa, Japan, 2011.
4. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Naha University*, Okinawa, Japan, 2010
5. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Kagoshima University*, Japan, 2011.
6. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Kagoshima University*, Japan, 2010
7. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Central Research Institute of the Electric Power Industry*, Tokyo, Japan, 2010.
8. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Port and Airport Research Institute*, Japan, 2010.
9. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Yokohama National University*, Japan, 2010.
10. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Yokohama National University*, Japan, 2010
11. "Ecological Modeling of Emergent Vegetation in High Wave Energy Coastal Environments," *Kwandong University*, Korea, 2010
12. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Korean Coastal Engineering Conference*, Keynote Lecture, 2010.

13. "Modeling of Tsunami Inundation in Urban Waterfront Areas," *Nagoya University*, 2010.
14. "Large-Scale Laboratory Measurements of Hurricane Wave Forces on Highway Bridge Superstructures," *Louisiana State University*, 2008.
15. "The O.H. Hinsdale Wave Research Laboratory and NEES Tsunami Facility at Oregon State University," *Texas A&M University*, 2007.
16. "The O.H. Hinsdale Wave Research Laboratory and NEES Tsunami Facility at Oregon State University," *Hanyang University*, Seoul, Korea, 2006.
17. "The O.H. Hinsdale Wave Research Laboratory and NEES Tsunami Facility at Oregon State University," *Chonnam National University*, Yeosu, Korea, 2006.
18. "Tsunamis! Making Waves at Oregon State's O.H. Hinsdale Wave Research Laboratory," *The Science & Math Investigative Learning Experiences (SMILE) program*, 2006.
19. "Wave, Currents, and Regional Sediment Management at the Mouth of the Columbia River," *Oregon State University Council of Regents*, Astoria, Oregon, 2005.
20. "The Next Big Wave: Coastal and Ocean Engineering at Oregon State University," *ASCE Student Chapter Annual Dinner*, 2005.
21. "The Future of Coastal Engineering and Tsunami Research at Oregon State University," *Port and Airport Research Institute*, Japan, 2004.
22. "Coastal and Ocean Engineering Research and Education in Laboratory Wave Basins" *Oregon State University*, 2002.
23. "Relative Importance of Local and Remote Forcing on Subtidal Variability in Galveston Bay, Texas," *Marine Forecasters of Southern Region Workshop*, National Weather Service, Corpus Christi, TX, 2001.
24. "Intermittency in Surf Zone Turbulence," International Workshop on Wave Turbulence, *Cornell University*, Ithaca, NY, 1999.
25. "Intermittency in Surf Zone Turbulence," and "Bottom Shear Stress in the Surf and Swash Zone" *Disaster Prevention Research Institute*, Kyoto University, Uji, Japan, 1999.
26. "Coastal Engineering at Texas A&M University," and "Intermittency in Surf Zone Turbulence," *Central Research Institute of the Electric Power Industry*, Tokyo, Japan, 1999.
27. "Intermittency in Surf Zone Turbulence," and "Bottom Shear Stress in the Surf and Swash Zone," *Tokyo Institute of Technology*, Tokyo, Japan, 1999.
28. "Wave Breaking Turbulence and bottom boundary layer processes," *Woods Hole Oceanographic Institution*, Woods Hole, MA, 1999.
29. "Wave Breaking Turbulence and Sediment Suspension," *Naval Research Laboratory*, Stennis Space Center, MS, 1999.
30. "Bottom Shear Stress under Breaking Waves," *Woods Hole Oceanographic Institution*, Woods Hole, MA, 1995.
31. "Numerical and Experimental Modeling of Surf Zone Hydrodynamics," *U.S. Army Corps of Engineers*, Field Research Facility, Duck, NC, 1995.
32. "Numerical and Experimental Modeling of Surf Zone Hydrodynamics," *Yokohama National University*, Yokohama, Japan, 1994.

33. “Numerical and Experimental Modeling of Surf Zone Hydrodynamics,” *Texas A&M University*, College Station, Texas, 1994.
34. “RBREAK: A Numerical Model for Random Waves Incident on Coastal Structures and Beaches,” *U.S. Army Corps of Engineers, Waterways Experiment Station*, Coastal Engineering Research Center, Vicksburg, MS, 1992.
35. “Irregular Wave Reflection and Runup on Rough, Permeable Slopes,” *Coastal Engineering Laboratory and Disaster Prevention Research Institute*, Kyoto University, Uji, Japan, 1989.

8. Funding: Competitive Grants and Testing

8.1 Competitive Grants:

1. “Envisioning a Resilient Oregon Coast: Co-developing Alternative Futures for Adaptation Planning and Decision-making,” Oregon Sea Grant, \$881,752; 2018-2022, J Bolte, S Dundas, DT Cox, P Ruggiero (PI), J. Tilt
2. “Development of Multi-Scale, Variable-Resolution Modeling Tools to Support Scalable Macroalgae Production in US Coastal Waters,” ARPA-E (from PNNL), \$400,000, 2017-2019, DT Cox (PI), S Yim.
3. “Collaborative Research: Physics of Dune Erosion during Extreme Wave and Storm-Surge Events,” NSF, \$309,588, 2018 – 2021, DT Cox (PI), M Wengrove.
4. “Workshop: Coastal Engineering Research Framework, Arlington, Virginia, November 12-13, 2018,” NSF, \$50,000, 2018 – 2019, A Kennedy (PI, NDU), DT Cox, T Tomiczek (USNA), P Lynett (USC), J Irish (Va Tech).
5. “Planning Grant: Engineering Research Center for Adaptive and Resilient Coastal Infrastructure (CARCI),” NSF, \$100,000, 2018-2019, DT Cox (PI), S Brody (TAMU), J Padgett (Rice), P Ruggiero, R Lopez (UPRM).
6. “Collaborative Research: Wave, Surge, and Tsunami Overland Hazard, Loading and Structural Response for Developed Shorelines” NSF, \$385,822, 2018-2020, DT Cox (PI), AR Barbosa.
7. “Envisioning a Resilient Oregon Coast: Co-developing alternative futures for adaptation planning and decision-making” Oregon Sea Grant, \$50,000, 2017-2018, P. Ruggiero (PI), J. Bolte, DT Cox, S. Dundas, J Tilt.
8. “An Integrated Social Science and Agent-based Modeling Approach to Improve Life Safety from Near-field Tsunami Hazards” NSF, \$393,428, 2016-2019, H Wang (PI), DT Cox, L Cramer.
9. “A Multidisciplinary, Integrative Approach to Valuing Ecosystem Services from Natural Infrastructure,” NOAA/NOS, \$1,350,000; 2015-2016, S Dundas (PI), DT Cox, S Hacker, D King, D Lewis, C Parrish, P Ruggiero.
10. “Experimental and Numerical Study to Improve Damage and Loss Estimation Due to Overland Wave and Surge Hazards on Near-Coast Structures,” Department of Homeland Security, \$350,000; 2016-2020, DT Cox (PI, OSU Lead), JW van de Lindt (CSU)
11. “NHERI: Experimental Facility 2015-2019,” National Science Foundation, \$3,823,079; 2016 - 2020, DT Cox (PI), C. Higgins, P. Lomonaco.

12. "NIST Center for Risk-Based Community Resilience Planning," National Institute of Standards and Technology (subcontract to Colorado State University), \$1,147,532; 2015-2019, DT Cox (PI), AR Barbosa, M Scott.
13. "Building Resilient Coastal Communities: A Social Assessment of Mobile Technology for Tsunami Evacuation Planning," Oregon Sea Grant, \$123,926, L Cramer (PI), DT Cox, H Wang.
14. "Collaborative Research: Large-scale laboratory investigation and numerical modeling of sheet flow sediment transport dynamics across a surf zone sand bar," National Science Foundation, \$421,654, 2014-2017, DT Cox (PI)
15. "Collaborative Research: Fundamental Mechanics and Conditional Probabilities for Prediction of Hurricane Surge and Wave Loads on Elevated Coastal Structures," National Science Foundation, \$210,000, 2013-2016, DT Cox (PI).
16. "An Integrated Engineering-Economic Vulnerability Assessment Tool to Increase Tsunami Preparedness in Rural Coastal Counties," Oregon Sea Grant, \$190,000, 2012-2014, Y Chen (PI), DT Cox, P Corcoran, B Webber.
17. "NEESR-CR: Impact Forces from Tsunami-Driven Debris," National Science Foundation, \$963,111, 2010-2013, HR Riggs (UH, PI), DT Cox, C Naito (Lehigh), M Kobayashi (UH).
18. "Ecological modeling of emergent vegetation for sustaining wetlands in high wave energy coastal environments," National Science Foundation, \$300,000, 2009-2012, DT Cox (PI) and D Albert.
19. "NEESR II: Mitigating the Risk of Coastal Infrastructure through understanding Tsunami-Structure Interaction and Modeling," National Science Foundation, \$375,000, 2008-2011, DT Cox (PI), R Gupta, J van de Lindt (CSU), F Aguiniga (TAMU-K).
20. "Hurricane Wave Forces on Highway Bridge Superstructure: Psuedo-dynamic Testing for Bridge Subassembly," Oregon Transportation Research and Education Consortium, \$100,000, 2009, DT Cox.
21. "Coupled Hydraulic-Structural Testing to Improve Highway Bridge Performance Under Extreme Hurricane Wave Loads," National Science Foundation, \$100,000, 2008-2010, DT Cox (PI), C Higgins, S Yim.
22. "MRI: Acquisition of a Large-Stroke, Piston-Type Wavemaker for Coastal Hazards Research and Education," National Science Foundation, \$1,132,800, 2008-2009, DT Cox (PI), T. Ozkan-Haller, A von Jouanne, S Yim.
23. "Hurricane Wave Forces on Highway Bridge Superstructure: Repair and Retrofit of Existing Bridges," Oregon Transportation Research and Education Consortium, \$75,000, 2008, DT Cox.
24. "Hurricane Wave Forces on Highway Bridge Superstructures," Oregon Transportation Research and Education Consortium, \$50,000, DT Cox, 2007.
25. "Physical and numerical modeling of intensity-based tsunami inundation," Oregon Sea Grant, \$170,000, 2007-2009, DT Cox.
26. "Large Scale Laboratory Tests of Coastal Dune Erosion," Oregon Sea Grant, \$170,000, 2006-2008, P Ruggiero (PI), T Maddux, DT Cox.
27. "Maintenance and Operation of NEES Tsunami Wave Research Facility," NEES Consortium, Inc, \$4,547,906, 2004-2008, S Yim (PI), DT Cox, C Pancake, H Yeh.

28. "NEES Instrumentation Acquisition for the Tsunami Wave Basin" National Science Foundation, \$250,000, 2004-2005. DT Cox (PI), H Yeh, S Yim.
29. "Collaborative Research: CROSSTEX - Wave breaking and boundary layer processes and the resulting sediment suspension in the surf zone," National Science Foundation, \$382,228, 2004-2008, DT Cox.
30. "Numerical and Physical Model Study of Cobble Berms," Oregon Sea Grant, \$37,993, 2004-2005, DT Cox.
31. "Scientific Synthesis in Support of the Columbia Near-shore Beneficial Use of Dredged Material Project" \$99,020, 2004-2005, G Achterman (PI), R Davis-Born, DT Cox.
32. "REU-Site: Interdisciplinary Approaches to Coastal Processes and Hazard Mitigation," National Science Foundation, \$287,722, 2003-2005, DT Cox (PI), M Haller, C Pancake.
33. "Incorporating meteorological forecasts to nowcast/forecast water level anomalies in navigable waterways of the northwestern Gulf of Mexico," Sea Grant, \$181,838, 2003-2005, DT Cox (PI), P Tissot, P Michaud.
34. "Upgrading Oregon State's Multidirectional Wave Basin for Remote Tsunami Research," National Science Foundation, \$4,775,832, 2001-2004, S Yim (PI), DT Cox, C Pancake, H Yeh.
35. "A Fundamental Upgrade of the Texas Coast Water Level Forecasting System," Texas Coastal Coordination Council, \$153,692, 2001-2003, P Michaud (PI), P Tissot, DT Cox.
36. "Proposal to Investigate Shoreline Erosion in Jefferson County, Texas," Jefferson County, Texas, \$164,202, 1998-1999, B Edge (PI), DT Cox.
37. "NSF Career Award: Experimental and Numerical Modeling of Coastal Boundary Layer Processes Induced by Shoaling and Breaking Surface Gravity Waves," National Science Foundation, \$210,000, 1998-2002, DT Cox.
38. "Field Observations of the Three-Dimensional Flow Structure and Sediment Movement in the Surf Zone," Japan Society for the Promotion of Science, \$7,300, 1999, DT Cox.
39. "Research Experience for Undergraduate Program (Joshua Carter) – Supplement to NSF Career Award," National Science Foundation, 1999, DT Cox.
40. "Matching Support for Pacific International Testing," National Science Foundation, \$15,000, 1999-2000, DT Cox.
41. "Remediation of Contaminated Sediments in Lavaca Bay, Texas: Physical Modeling of Nearshore Sediment Suspension," Energy Resource Program Texas A&M University, \$16,800, 1999, DT Cox.
42. "Education and Student Research in Offshore Tin Mining," National Science Foundation, \$67,950, 1997-1999, B Edge (PI), DT Cox, M Kim, R Randall.

8.2 Service and Testing Projects

1. "Physical Model Testing of Levee Overtopping for Jackson State University," Jackson State University, \$207,512, 2009.
2. "Physical Model Testing of Columbia Power Buoy," Columbia Power Technology, \$60,176, 2009.
3. "Physical Model Testing for Lightweight Modular Causeway System, Phase 2," US Army Corps of Engineers, \$28,818, 2009.

4. "Physical Model Testing of Sealift Cargo Movement Technology (SCMT)," Oceaneering, \$62,495, 2009.
5. "Physical Model Testing for Northstar Renewal Project," PND Engineers / BP, \$549,900, 2008.
6. "Physical Model Study of Hyperion Outfall," Parsons/E2 Engineers, \$40,360, 2007.
7. "Physical Model Testing for Hurricane Impact on Dune Protection," US Army Corps of Engineers – ERDC, \$60,000, 2006.
8. "Physical Model Testing for Dune Scarping and Overwash," Oregon Sea Grant, \$19,000, 2006.
9. "Physical Model Testing for Lightweight Modular Causeway," US Army Corps of Engineers, \$30,000, 2006.
10. "Physical Model Testing for Riprap Stability and Impact Pressure, Santee Cooper Slope Protection Project, Phase II," Paul C. Rizzo Associates, Inc, \$59,280, 2006.
11. "Physical Model Testing for Riprap Stability and Impact Pressure, Santee Cooper Slope Protection Project," Paul C. Rizzo Associates, Inc, \$83,206, 2006.
12. "Physical Model Study of Stability, Runup and Overtopping for Oooguruk Production Island," Coastal Frontiers Corporation, \$57,880, 2005.
13. "Physical Model Testing for Jetty Extension at Keystone Harbor, WA, Phase II," Coast and Harbor Engineering, \$70,000, 2005.
14. "Physical Model Study of Wave Runup and Overtopping for El Sauzal Graving Dock Breakwater" Coastal Frontiers Corporation, \$60,124, 2004
15. "Physical Model Testing for Jetty Extension at Keystone Harbor, WA, Phase I," Coast and Harbor Engineering, \$139,986, 2004.
16. "Landslide generated tsunami, Phase 3," California Institute of Technology, \$20,000, 2004.
17. "Model testing for Phase 3 (Defender) floating breakwater," Coast & Harbor Engineering, \$15,205, 2003.
18. "Model testing for a floating breakwater at Bremerton, WA. Phase 1 and 2" Coast & Harbor Engineering, \$27,850, 2003.
19. "Scale model tests of instrument tripod for the Mouth of the Columbia River," USACE – Portland District, \$6,000, 2003.
20. "Landslide generated tsunami, Phase 2," California Institute of Technology, \$19,000, 2003.
21. "Testing Agreement Between TEES and Pacific International Engineering," Pacific International Engineering, Inc, \$15,000, 1999.
22. "Shoreline Protection for Dredge Island: Physical Model Testing," Aluminum Company of America, Point Comfort Operations (B. Edge, PI), \$169,535, 1996.

9. Post doctoral advisees, Graduate and Undergraduate Research Students

9.1 Post doctoral scholars

1. Sabarethinam Kameshwar, 2017-now
2. Hyounsu Park, 2016-now
3. Victoria (Tomiczek) Johnson, 2016-2017

4. Wei Cheng Wu, 2015-2016
5. Sungwon Shin, 2006-2010

9.2 Graduate students (* expected date of graduation)

1. Kiernan Kilty, M.S, 2021*
2. Dylan Sanderson, Ph.D, 2024*
3. Sean Duncan, M.S, 2020*
4. Matt Karny, M.S, 2018
5. Jason Burke, M.S, 2018
6. Benjamin Hunter, M.S, 2016
7. William Short, M.S, 2016
8. Hyoungsu Park, Ph.D, 2016
9. Wei Chen Wu, Ph.D, 2015
10. Jason Kiel, M.E, 2015
11. Harrison Ko, M.Sc, 2013
12. Dane Weibe, M.Sc, 2013
13. Philip Blackmar, M.Sc, 2013
14. Hendrick Schoeman, M.Sc, 2012
15. Hyung Doug Yoon, Ph.D, 2011
16. Kerri Bridges, M.Sc, 2011
17. Seth Thomas, M.Sc, 2011
18. Mary Beth Oshnack, M.Oc.E, 2010
19. David Newborn, M.Oc.E, 2009
20. Grady Donovan, M.Sc, 2008
21. Christopher Bradner, M.Oc.E, 2008
22. Charles Bisgard, M.Sc, 2006
23. Shingo Ichikawa, M.Oc.E, 2006
24. Christopher Scott, M.Oc.E, 2005
25. Sungwon Shin, Ph.D, 2005
26. Eileen Crawford, M.Sc, 2005
27. Brady Richmond, M.Oc.E, 2005
28. Joel Darnell, M.Oc.E, 2004
29. Young-Joo Nam, M.S, 2002
30. Gregory Guannel, M.S, 2001
31. Francis Way, M.S, 2000
32. Ashok Sukumaran, M.S, 2000
33. William Hobensack, M.S, 1999
34. Victor Ginting, M.S, 1998
35. Olga Pattipawaej, M.S, 1998
36. Joel Rathbun, M.S, 1998 (Co-advisor)
37. Douglas Kennedy, M.S, 1998
38. Luis Moreno, M.E, 1997 (Co-Adviser)
39. Brad Schwichtenberg, M.E, 1997 (Co-advisor)

9.3 Undergraduate research students

1. Jorge Santiago Hernández, CEE SURF Program, 2018
2. Brian Acevedo, CEE SURF Program, 2018
3. Amy Salisbury, CEE SURF Program, 2017
4. Tim Flowerday, CEE SURF Program, 2017
5. Anna Tsai, NHERI REU, 2017

6. Diego Delgado, CEE SURF Program, 2016
7. Kevin Cueto, CCE SURF Program, 2016
8. Nanami Noguchi, Japan exchange student, 2015
9. Narumi Kon-no, Japan exchange student, 2015
10. Yuya Hanai, Japan exchange student, 2014
11. Saki Kawano, Japan exchange student, 2014
12. Masahiro Sagehashi, Japan exchange student, 2013
13. Taihei Akatsuka, Japan exchange student, 2013
14. Koutaro Anahara, Japan exchange student, 2013
15. Jasmine Pahukula, NSF REU, 2013
16. Emily Flock, NSF REU EISI Site, 2012
17. Sarah Vallejo, NSF REU EISI Site, 2012
18. Latifa Salih, NSF REU EISI Site, 2012
19. Amy Kordosky, OSU Honors, 2012-13, NSF REU Supplement, 2012
20. Patrick Basal, NSF REU NEES Site, 2012
21. Manuel Garcia Castano, 2012
22. Matt Rueben, OSU Honors, 2011-13
23. Brittany Snyder, OSU Honors, 2010-11, Sea Grant, 2007
24. Sean Lagunas, NSF REU EISI Site, 2010
25. Hayden Ausland, NSF REU EISI Site, 2010
26. Jose Lonzano, NSF NEES project, 2010
27. Lindsay Croghan, NSF REU Supplement, 2009
28. Francisco Galan, NSF REU NEES Site, 2009
29. Manuel Guerra, NSF NEES project, 2009
30. Sarah E. Criswell, NSF REU HWRL Site, 2005
31. Meghan Irving, NSF REU HWRL Site, 2005
32. James Lynch, NSF REU HWRL Site, 2005
33. Christie Mills, NSF REU HWRL Site, 2004
34. Erin Lucas, NSF REU HWRL Site, 2004
35. James Galloway, NSF REU HWRL Site, 2004
36. William Boylston, NSF REU HWRL Site, 2004
37. Nathan Papini, NSF REU HWRL Site, 2003
38. Neil Clayton, NSF REU HWRL Site, 2003
39. Adrojan Spencer, NSF Summer REU Program, 2001
40. Jose Alberto Ortega, EPO Summer Research, 2000
41. Joel Darnell, NSF REU Program, 2000
42. Josh Carter, NSF REU Program, 1999
43. Christopher Scott, NSF REU Program, 1999
44. Hunter Taylor, NSF REU Program, 1998
45. Josh Carter, NSF REU Program, 1997
46. Douglas Kennedy, NSF REU Program, 1996

9.4 High School Teacher research assistants

1. Michael Patterson, Junipero Serra HS, San Mateo, CA, RET Supplement, 2012
2. Dave Tolle, Sweet Home HS, Sweet Home, OR, RET Supplement, 2009
3. Ann Knight, Sweet Home HS, Sweet Home, OR, RET Supplement, 2009